



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,236	04/04/2001	Scott W. Huffer	149169	2449

7590 08/19/2002

Seidel, Gonda,
Lavorgna & Monaco, P.C.
Suite 1800
Two Penn Center Plaza
Philadelphia, PA 19102

EXAMINER

DICUS, TAMRA

ART UNIT	PAPER NUMBER
----------	--------------

1774

DATE MAILED: 08/19/2002

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/826,236

Applicant(s)

HUFFER ET AL.

Examiner

Tamra L. Dicus

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-22, drawn to a laminate, classified in class 428, subclass 34.3
 - II. Claims 23-25, drawn to a method for making a laminate, classified in class 427, subclass 44.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions of Groups I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the laminate of Group I can be made by a different process such as curing the electron beam curable layer with an oven.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Thomas Durling on August 1, 2002 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-22. Affirmation of this election must be made by applicant in replying to this Office action. Claims 23-25 are

Art Unit: 1774

withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-12 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification lacks explanation of how metal foil is on top of a polymer layer.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as

Art Unit: 1774

the invention. It is not clear how the metal foil is actually present in Claim 1, before the polymer layer because it appears from the description that the metal foil is deposited after the polymer layer and therefore, would not be sequentially in order as claimed (see pg. 7, lines 7-8).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,177,310 to Steeves et al. in view of USPN 6,291,062 to Oshima et al. and further in view of USPN 6,045,654 to Kjølgaard.

Steeves teaches a packaging laminate comprising in order:

- A metal foil of aluminium
- A polymer layer,
- A paper layer

at column 2, lines 38-47.

Also regarding claims 13 and 17, Steeves teaches the addition of an adhesive (bonding) layer in between an inorganic layer of aluminum and paper at col. 5, lines 17-21.

While Steeves does not expressly disclose an additional electron beam cured layer on the other side of the paper, he teaches it is known to cure oligomers and monomers such as epoxy

Art Unit: 1774

and acrylic resins at col. 4, lines 1-4, with an high electron beam on a paper substrate for the purpose of providing a smooth and uninterrupted resin film surface at col. 3, lines 26-29 and col. 3, lines 59-col. 4, lines 20. At col. 4, lines 34-65, Oshima teaches the specific monomers, oligomers, and polymers of claims 5-7 and 21. Oshima teaches it is known to cure a resin layer of oligomers, such as acrylates such as epoxy resins (epoxy acrylate) by an electron beam (electron beam cured layer) on a paper substrate.

Regarding claims 4 and 14, Steeves does not teach a polymer layer of polyethylene or polypropylene. Oshima teaches at col. 4, lines 35-36 suitable resins to use with/on paper are polyethylene and polypropylene. Steeves and Oshima are analogous art because both references are in the same field of endeavor (or address the same or similar problem with which the inventor was involved), such as packaging laminates. Therefore it would have been obvious to one of ordinary skill in the art to modify the main laminate structure of Steeve to include a polymer layer of poly-ethylene/propylene and an additional layer of electron beam cured layer such as a layer of epoxy acrylate adjacent to the paper, opposite a polymer layer, for the purpose of providing a smooth surface to paper as taught by Steeves at col. 2, lines 42-44 and because Oshima teaches the advantage of such a curable layer providing ink-receiving capabilities at col. 5, lines 1-4.

Although Steeves mentions curing an electron beam curable layer, Steeves does not expressly disclose using an electron beam having the energy requirements of claims 8 and 9. Further regarding claims 8-11, the phrases, "cured by..." are process limitations and are given no patentable weight. The process does not change the product. See MPEP 2113. Furthermore, the

Art Unit: 1774

invention defined by a product-by-process invention is a product NOT a process. *In re Bridgeford*, 357 F. 2d 679.

12. Regarding claims 15-18 while Steeves does not expressly state a polymer layer of polyethylene terephthalate adjacent to an inorganic layer. Kjelgaard states a packaging laminate comprising a paper substrate having a barrier layer that is of an inorganic material such as aluminium foil, aluminium oxide, and silica (silicon oxide) further comprising polypropylene or polyethylene terephthalate produced by metallizing the polymer layer at col. 3, lines 16-30. Further regarding claim 16, Steeves teaches it is well known in the art to metallize a polymer layer to produce an inorganic layer at col. 3, lines 59-60, lines 67-68, and at col. 4, lines 1-4 Steeves lists suitable polymers and inorganic layers such as aluminium. However, the act of *metallizing* is a process limitation and is given no patentable weight. Product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. Patentability of an article depends on the article itself and not the method used to produce it (see MPEP 2113). Kjelgaard and Steeve are analogous art because both references are in the same field of endeavor and address the same or similar problem with which the inventor was involved, such as packaging laminates. Therefore, it would have been obvious to one of ordinary skill in the art to modify the laminate of Steeves to substitute a polymer layer of polyethylene with a polymer layer of polypropylene or polyethylene terephthalate adjacent to an inorganic layer of an oxide comprising aluminium and silicon or aluminium foil, since Kjelgaard proves resin compatibility.

13. Regarding claims 3 and 19, Steeves is silent to teaching an ink layer printed on a paper layer adjacent to an electron beam cured layer. Oshima teaches ink coated on a substrate such as

Art Unit: 1774

paper with subsequent curing of a cured resin layer at col. 4, lines 33-35 and col. 5, lines 3-6, which would render an ink layer printed on paper, sandwiched between a paper and electron beam cured layer obvious to one of ordinary skill in the art.

14. Regarding claim 2 and 20, Steeves does not specifically express a wax layer disposed on the curable beam layer opposite the paper. Oshima suggests that a wax layer coated over an electron beam cured layer is known in the art at col. 5, lines 24-40. Oshima teaches wax as a covering for images comprising an electron beam cured layer for the purpose of providing improved properties such as gloss at col. 5, lines 37-40, which renders a wax layer on top of an electron beam cured layer opposite a paper layer obvious to one of ordinary skill in the art when included with the invention of Steeves.

15. Regarding claims 12 and 22, Steeves is silent to including slip agents in an electron beam cured layer. Oshima teaches the incorporation of other additives such as slip agents to cured resin layers at col. 5, lines 24-40. It would have been obvious to one of ordinary skill in the art to modify the invention of Steeves to include slip agents reacted in an electron beam cured layer as taught by Oshima for the purpose of improving a packaging laminate to exhibit slip properties at col. 5, line 38.

16. Although Steeves is silent to specifically calling his laminate a “gum package”, the laminate of Steeves functions as a gum package since at col. 5, line 15, Steeves explains the laminate may be used for wrapping food. Therefore, one would be motivated to use such a laminate for gum, rendering all claims obvious to one of ordinary skill in the art. The examiner has established a *prima facie* case of obviousness and has provided evidentiary support thereof for the rejection of claims 1-20 under 35 U.S.C. 103(a).

Art Unit: 1774

Conclusion

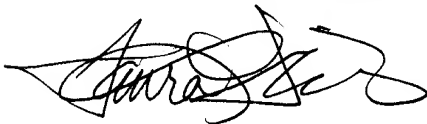
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- USPN 5,770,301 to Murai et al. teaches using PVC as an option for a base film with the formation of an inorganic layer on top of the base film, with the addition of an additional layer of curable resins with a dye or pigment.
- USPN 5,888,640 to Marotta et al. teaches an aluminum layer formed by metallizing a polymer layer of various polyolefins.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is (703) 305-3809. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-8329 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Tamra L. Dicus
Examiner
Art Unit 1774

August 14, 2002

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

